

TRI Releases, Transfers and Waste Management, Original Industries, 1995-1998

	1995 Number	1996 Number	1997 Number	1998 Number	Change 1997-1998		Change 1995-1998	
					Number	Percent	Number	Percent
Total Facilities	22,859	22,340	21,927	21,517	-410	-1.9	-1,342	-5.9
Total Forms	76,139	73,669	73,076	72,074	-1,002	-1.4	-4,065	-5.3
Form Rs	69,471	66,167	62,390	61,234	-1,156	-1.9	-8,237	-11.9
Form As	6,668	7,502	10,686	10,840	154	1.4	4,172	62.6
	Pounds	Pounds	Pounds	Pounds	Pounds	Percent	Pounds	Percent
On-site Releases								
Total Air Emissions	1,585,156,840	1,470,214,042	1,336,600,706	1,256,951,444	-79,649,262	-6.0	-328,205,396	-20.7
Fugitive Air Emissions	392,706,983	351,331,196	318,148,917	292,504,215	-25,644,702	-8.1	-100,202,768	-25.5
Point Source Air Emissions	1,192,449,857	1,118,882,846	1,018,451,789	964,447,229	-54,004,560	-5.3	-228,002,628	-19.1
Surface Water Discharges	180,516,139	184,739,434	222,302,322	223,365,762	1,063,440	0.5	42,849,623	23.7
Underground Injection	236,194,397	209,317,311	221,732,690	210,639,389	-11,093,301	-5.0	-25,555,008	-10.8
On-site Land Releases	319,250,562	333,685,655	350,551,945	355,674,874	5,122,929	1.5	36,424,312	11.4
On-site Landfills	94,460,060	83,463,962	110,056,796	115,069,841	5,013,045	4.6	20,609,781	21.8
Land Treatment	8,087,867	6,032,164	6,115,770	5,210,603	-905,167	-14.8	-2,877,264	-35.6
Surface Impoundments	75,899,426	84,831,782	96,953,726	90,237,471	-6,716,255	-6.9	14,338,045	18.9
Other Disposal	140,803,209	159,357,747	137,425,653	145,156,959	7,731,306	5.6	4,353,750	3.1
Total On-site Releases	2,321,117,938	2,197,956,442	2,131,187,663	2,046,631,469	-84,556,194	-4.0	-274,486,469	-11.8
Off-site Releases								
Storage Only*	2,395,446	1,451,317	6,595,584	11,749,603	5,154,019	78.1	9,354,157	390.5
Solidification/Stabilization -**	26,723,956	59,253,534	144,629,694	137,084,182	-7,545,512	-5.2	110,360,226	413.0
Metals and Metal Compounds Only								
Wastewater Treatment (excluding POTWs) -***	3,740,028	3,776,635	5,467,652	4,225,724	-1,241,928	-22.7	485,696	13.0
Metals and Metal Compounds Only								
Transfers to POTWs -****	2,542,345	2,448,282	2,450,875	3,045,974	595,099	24.3	503,629	19.8
Metals and Metal Compounds Only								
Underground Injection	17,956,560	11,614,971	15,187,697	16,481,522	1,293,825	8.5	-1,475,038	-8.2
Landfills/Surface Impoundments	223,840,275	237,372,538	246,075,735	232,738,747	-13,336,988	-5.4	8,898,472	4.0
Land Treatment	4,688,153	2,208,908	1,238,127	1,326,956	88,829	7.2	-3,361,197	-71.7
Other Land Disposal	13,655,120	12,085,985	12,051,182	15,597,579	3,546,397	29.4	1,942,459	14.2
Other Off-site Management	12,817,023	10,665,955	11,970,541	9,873,534	-2,097,007	-17.5	-2,943,489	-23.0
Transfers to Waste Broker for Disposal	6,418,199	4,838,441	7,678,059	14,052,361	6,374,302	83.0	7,634,162	118.9
Unknown*****	1,638,043	1,610,439	2,439,375	3,952,214	1,512,839	62.0	2,314,171	141.3
Total Off-site Releases	316,415,148	347,327,005	455,784,521	450,128,396	-5,656,125	-1.2	133,713,248	42.3
(Transfers Off-site to Disposal)								
Total On-site and Off-site Releases	2,637,533,086	2,545,283,447	2,586,972,184	2,496,759,865	-90,212,319	-3.5	-140,773,221	-5.3
Transfers Off-site for Further Waste Management								
Transfers to Recycling	2,264,288,077	2,200,626,637	2,189,348,418	1,989,546,130	-199,802,288	-9.1	-274,741,947	-12.1
Transfers to Energy Recovery	518,969,202	478,301,979	507,689,578	478,821,401	-28,868,177	-5.7	-40,147,801	-7.7
Transfers to Treatment	250,844,541	226,781,151	262,423,782	251,823,538	-10,600,244	-4.0	978,997	0.4
Transfers to POTWs	250,389,543	244,511,023	272,349,506	266,724,175	-5,625,331	-2.1	16,334,632	6.5
Other Off-site Transfers*****	2,510,305	1,044,503	34,528	921,574	887,046	2,569.1	-1,588,731	-63.3
Total Transfers Off-site for Further Waste Management	3,287,001,668	3,151,265,293	3,231,845,812	2,987,836,818	-244,008,994	-7.6	-299,164,850	-9.1
Waste Management								
Recycled On-site	11,663,554,919	7,533,569,188	8,232,956,364	9,646,825,222	1,413,868,858	17.2	-2,016,729,697	-17.3
Recycled Off-site	2,350,533,667	2,243,302,912	2,202,661,577	2,059,419,896	-143,241,681	-6.5	-291,113,771	-12.4
Energy Recovery On-site	2,740,388,125	2,727,639,231	2,794,347,219	2,851,489,429	57,142,210	2.0	111,101,304	4.1
Energy Recovery Off-site	503,968,089	512,680,522	521,798,706	485,373,723	-36,424,983	-7.0	-18,594,366	-3.7
Treated On-site	6,794,862,115	5,943,643,124	6,020,549,126	6,012,991,050	-7,558,076	-0.1	-781,871,065	-11.5
Treated Off-site	569,710,695	511,458,178	530,911,878	547,355,031	16,443,153	3.1	-22,355,664	-3.9
Quantity Released On- and Off-site	2,556,354,462	2,469,858,172	2,496,082,319	2,449,256,842	-46,825,477	-1.9	-107,097,620	-4.2
Total Production-related Waste	27,179,372,072	21,942,151,327	22,799,307,189	24,052,711,193	1,253,404,004	5.5	-3,126,660,879	-11.5
Non-Production-related Waste	34,060,993	30,846,845	35,306,677	26,993,463	-8,313,214	-23.5	-7,067,530	-20.7

Note: On-site Releases from Section 5 of Form R. **Off-site Releases** are from Section 6 (transfers off-site to disposal) of Form R.

Off-site Releases include metals and metal compounds transferred off-site for solidification/stabilization and for wastewater treatment, including to POTWs.

Other On-site Waste Management from Section 8.

Total Transfers Off-site for Further Waste Management from Section 6 (excluding transfers off-site to disposal) of Form R.

Breakdown of Underground Injection and On-site Land Releases (for RCRA Subtitle C landfills) began in 1996 reporting year.

* "Storage only" (disposal code M10) indicates that the toxic chemical is sent off-site for storage because there is no known disposal method. Amounts reported as transferred to "storage only" are included as a form of disposal (off-site release). See Box 2-2.

** Beginning in reporting year 1997, transfers to solidification/stabilization of metals and metal compounds (waste treatment code M41) are reported separately from transfers to solidification/stabilization of non-metal TRI chemicals (waste treatment code M40). Because this treatment method prepares a metal for disposal, but does not destroy it, such transfers are included as a form of disposal (off-site release). See Box 2-3. Reports under code M40 of metals and metal compounds have been included in solidification/stabilization of metals and metal compounds in this report.

*** Beginning in reporting year 1997, transfers to wastewater treatment (excluding POTWs) of metals and metal compounds (waste treatment code M61) are reported separately from transfers to wastewater treatment of non-metal TRI chemicals (waste treatment code M60). Because wastewater treatment does not destroy metals, such transfers are included as a form of disposal (off-site release). See Box 2-3. Transfers of metals and metal compounds reported under code M60 have been included in transfers of metals metal compounds to wastewater treatment.

**** Reported as discharges to POTWs in Section 6.1 of Form R. EPA considers transfers of metals and metal compounds to POTWs as an off-site release because sewage treatment does not destroy the metal content of the waste material.

***** "Unknown" (disposal code M99) indicates that a facility is not aware of the type of waste management used for the toxic chemical that is sent off-site. Amounts reported as "unknown" transfers are treated as a form of disposal (off-site release).

***** Other Off-site Transfers are transfers reported without a valid waste management code.

Users of TRI information should be aware that TRI data reflect releases and other waste management of chemicals, not exposures of the public to those chemicals.

Release estimates alone are not sufficient to determine exposure or to calculate potential adverse effects on human health and the environment. TRI data, in conjunction with other information, can be used as a starting point in evaluating exposures that may result from release and other waste management activities which involve toxic chemicals.